Understanding EPA's Proposed Changes to the Lead and Copper Rule

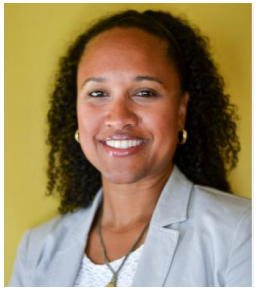
January 15, 2020

National Safe and Healthy Housing Coalition

SPEAKER INTRODUCTIONS

Nsedu Obot Witherspoon (Moderator)

- Executive Director, Children's Environmental Health Network



Tom Neltner

- Chemicals Policy Director, Environmental Defense Fund

Lindsay McCormick

- Program Manager, Chemicals and Health, Environmental Defense Fund

CHILDREN'S ENVIRONMENTAL HEALTH NETWORK

EPA's Proposed Lead and Copper Rule Revisions

January 14, 2020

Why We Care

CHILDREN'S ENVIRONMENTAL HEALTH NETWORK

- More than 4 million dwellings in the US have lead-based paint and lead dust hazards and are home to at least one child
- Up to 6-10 million US homes receive their drinking water from lead service lines
- Children under age 6 are at highest risk of harm from lead exposure, including prenatal exposure
- Children of color and from underserved communities have disproportionately higher exposures
- Adverse health and developmental effects can be serious and irreversible, with lifelong impacts to well-being

Proposed Revisions: Highlights

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- Takes a proactive and holistic approach to improving the current rule—from testing to treatment to telling the public about the levels and risks of lead in drinking water
- Requires earlier action to reduce risks and better protect families
- Includes efforts to improve transparency and communication to help protect children from lead exposure where they live, learn and play

Overview: Current Lead and Copper Rule (LCR)

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- Lead is not naturally found in water
- Lead from lead pipes, faucets, and fixtures can dissolve into water or sometimes can enter as flakes or small particles
- To keep lead from entering the water, EPA requires some systems to treat water using certain chemicals that keep the lead in place by reducing corrosion
- When corrosion control alone is not sufficient to control lead exposure, EPA requires systems to educate the public about risks of lead in drinking water and to replace lead service lines

Proposed Revisions: Summary

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- The proposed LCR maintains the current MCLG of zero and AL of 15 ppb but requires a more comprehensive response at the action level and introduces a trigger level of 10 ppb
- The trigger level is a new flexible provision designed to compel water systems to take progressive, tailored actions to plan upgrades to aging infrastructure and reduce levels of lead in drinking water
- This approach focuses on six key areas

Proposed Revisions: Key Areas

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

1. Identifying areas most impacted
2. Strengthening treatment requirements
3. Replacing lead service lines
4. Increasing sampling reliability
5. Improving risk communication
6. Protecting children in schools

Proposed Revisions: Key Area 1

OFFICE OF GROUND WATER AND DRINKING WATER

Identifying Areas Most Impacted

- The EPA will for the first time require systems to develop a public lead service line inventory and create a plan for removing lead service lines
- Unlike now, systems will have to pay attention to individual locations with elevated levels of lead by identifying the cause and mitigating the problem (find & fix)

Proposed Revisions: Key Area 2

OFFICE OF GROUND WATER AND DRINKING WATER

Strengthening treatment requirements

- Based on sampling results, systems with elevated lead levels will reevaluate their existing corrosion control treatment or conduct a treatment study so that they are prepared to respond quickly when necessary
- Flexibility is important for small systems so that they can protect public health by taking the action that makes sense for their community

Proposed Revisions: Key Area 3

OFFICE OF GROUND WATER AND DRINKING WATER

Replacing Lead Service Lines

- Systems above the trigger level of 10 parts per billion would be required to work with their state to set an annual goal for replacing lead service lines
- Water systems above 15 parts per billion would be required to fully replace a minimum of three percent of the number of known or potential lead service lines annually

Proposed Revisions: Key Area 3

OFFICE OF GROUND WATER AND DRINKING WATER

Replacing Lead Service Lines, continued

- Importantly, the proposal prohibits "test-outs" to avoid replacing lead service lines – an allowed practice under the current rule that has significantly slowed national progress in removing this significant source of lead from our homes
- Partial lead service line replacements will no longer be allowed except in certain situations (e.g., emergency repair) because science has recently shown us that partial lead service line replacement may increase short-term lead exposure

Proposed Revisions: Key Area 4

OFFICE OF GROUND WATER AND DRINKING WATER

Increasing Sampling Reliability

- Water systems will follow new, improved sampling procedures, will adjust sampling sites to better target locations with higher lead levels, and systems with higher levels will sample more frequently

Proposed Revisions: Key Area 5

OFFICE OF GROUND WATER AND DRINKING WATER

Improving Risk Communication

- Homeowners will learn about elevated levels of lead in their system sooner
- They will also understand where lead services lines are in their community and how to protect their family from exposure to lead

Proposed Revisions: Key Area 6

OFFICE OF GROUND WATER AND DRINKING WATER

Protecting Children in Schools

- For the first time, systems will be required to test school and child care facilities
- The system would be required to provide the results and information about the actions the school or child care facility can take to reduce lead in drinking water

Proposed LCR Revisions

Schools and Child Care Testing

EDF
ENVIRONMENTAL
DEFENSE FUND®
Finding the ways that work

Schools & Child Care: Lead in water testing today

- An estimated 127,000 schools and 767,000 licensed child care facilities not tested under current LCR
  - Only facilities that are regulated public water systems themselves must test
  - EPA relies on voluntary testing program,"3Ts for Reducing Lead in Drinking Water Toolkit"
- State lead in water testing requirements
  - Schools: 15 states and Washington, DC
  - Child care: 11 states
- Child care challenges compared to schools
  - Children under age six are most vulnerable to lead
  - Facility support system and public accountability
  - Home-based child care most likely to have lead service lines

Photo credit: Danielle Scruggs

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

EPA's proposal

EPA's proposed LCR revisions would require lead in water testing at all schools and licensed child care facilities constructed prior to 2014.

- Community water systems (CWSs) would be required to:
  - Compile a list of schools and licensed child care serviced by the CWS and verify list every five years
  - Provide facility with EPA's 3Ts toolkit
  - **Test at 20% of schools and licensed child care constructed prior to 2014 every year**
  - Retest every 5 years
  - Share sampling results with facility as well as local or state health department
- States with equivalent or more stringent school or child care testing requirements can receive a waiver

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

Key flaws with EPA's schools & child care testing proposal

- Inadequate sampling protocol

Facility Type	Number of Samples	Locations
Schools	**5**	2 drinking water fountains, 1 kitchen faucet, 1 classroom faucet, and 1 nurse's office faucet.
Licensed Child Care	**2**	1 drinking water fountain, and 1 of either kitchen faucet or 1 classroom faucet.

- Does not address lead service lines
- No requirement to fix identified problems:
  - Neither the CWS nor educational facility is required to remediate
  - EPA provides no lead level to trigger remediation

EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

Proposed Revisions: Lead Trigger Level

- Propose a new Lead Trigger Level (TL) of 10 µg/L
- TL is in addition to the lead action level (AL) of 15 µg/L
- Water systems that exceed the TL but not the AL:
  - No reduced tap sampling, annual at standard number of sites
  - Implement goal based LSLR program
  - Annual outreach to LSL customers
  - CCT study if CCT not installed
  - Re-optimize if CCT is installed

Proposed Revisions: Tap Sampling

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- Lead Service Line Inventory: Require all water systems to create an inventory of lead service lines and update it annually
- Tap sample site selection criteria (tiering)
  - Revise the tap sample site tiering criteria to emphasize sampling from LSL sites
  - Recategorize all copper pipe with lead solder sites regardless of age
- 90th percentile calculation for lead
  - Water systems with LSLs would use 100% tap samples from LSL sites
  - Water systems with insufficient numbers of LSLs collect samples from LSL and non-LSL sites would use the highest non-LSL tap samples
  - Water systems without LSLs would use all tap samples collected

Proposed Revisions: Tap Sampling, continued

EPA
OFFICE OF GROUND WATER AND DRINKING WATER

- Tap sample collection protocol
  - Prohibit systems from including sampling instructions to remove and clean aerators or to conduct pre-stagnation flushing prior to the start of the required stagnation period
  - Systems must supply samplers/consumers with wide-mouth bottles to collect a tap sample
- Monitoring
  - Systems above the Trigger Level must monitor at least annually (not eligible for reduced triennial monitoring)

Current LCR: Notifications & Public Education

- The annual Consumer Confidence Report (CCR) sent to all consumers must include lead sampling results and an informational statement about the health effects of lead and actions to reduce exposure
- Public Notification sent to all consumers if water system has a violation of the treatment technique within 30 days; and notice of violation for failure to monitor or report results within one year

Current LCR: Notifications & Public Education, continued

- Systems that exceed the lead action level must begin public education within 60 days after the end of monitoring period:
  - Educational materials must include information on health effects of lead, sources of lead, and steps consumers can take to reduce exposure to lead in drinking water
- Water systems send lead consumer notice with tap sample result to homes where a tap sample is collected within 30 days
- Note that the 2016 Water Infrastructure Improvement for the Nation Act (WIIN) requires notice of a 90th percentile lead level exceeding the AL within 24 hours

Proposed Revisions: Notification and Public Education

- Revise CCR mandatory health effects language and require reporting of the range of tap sample levels in addition to the 90th% and number of samples greater then the lead AL
- Water systems must conduct public notification to consumers within 24 hours of a 90th percentile lead level > AL (WIIN Act)
- Provide notice to customers whose individual tap sample is > 15 µg/L within 24 hours
- Require water systems with LSLs that exceed the TL to conduct annual outreach to LSL customers
- Deliver Public Education (PE) to impacted consumers during water-related work that may disturb LSLs
- Provide public access to LSL inventory

Proposed Revisions: Lead Service Line Replacement (LSLR)

OFFICE OF GROUND WATER AND DRINKING WATER

Proposed LCRR:
Requires 3% annual LSLR when lead action level is exceeded

- The entire LSL must be replaced to count towards 3% annual LSLR
- LSLR can stop after **4** monitoring rounds ≤ AL

Trigger Level:

- The entire LSL must be replaced to count towards goal LSLR rate approved by the state

Current LCR:
Requires 7% annual LSLR when lead action level is exceeded

- Allows system to replace only the water system portion of the LSL
- Allows systems to test LSLs and count as replaced if samples are ≤ 15 ppb
- Both of the above allow systems to meet 7% annual LSLR while leaving portions or entire LSLs in place
- LSLR can stop after **2** monitoring rounds ≤ AL

There is no trigger level requiring LSLR

Proposed Revisions: Small System Flexibility

- Applies to CWSs serving 10,000 or fewer persons and all NTNCWS
- Compliance alternatives for small CWSs:
  - full lead service line replacement
  - installation and maintenance of optimized corrosion control treatment, and
  - installation and maintenance of point-of-use (POU) devices

Proposed Revisions: Small System Flexibility, continued

- Compliance alternatives for NTNCWSs:
  - same alternatives as above, and
  - replacement of all lead bearing plumbing fixtures at every tap where water could be used for human consumption
- Water systems with a lead TL would recommend a compliance option and obtain Primacy Agency approval
- If a water system subsequently exceeds the lead AL it must implement the approved option

Comparison of Incremental Costs and Benefits for the Proposed Revisions

OFFICE OF GROUND WATER AND DRINKING WATER

	3% Discount Rate (2016$)	7% Discount Rate (2016$)
Annualized Incremental Costs	$131 - 270 Million	$130 – 286 Million
Annualized Incremental Benefits	$211 - 521 Million	$36 – 97 Million
Annual Net Benefits	**$79 - 251 Million**	**-$93 – 189 Million**

Next Steps

- Pre-publication version and other materials available at: https://www.epa.gov/safewater/lcrproposal
- Publication in the Federal Register
- 60 day comment period following **publication**
  - Submit your comments at http://www.regulations.gov
  - Docket ID No. EPA-HQ-OW-2017-0300
- Review and evaluate public comments
- Promulgate Final LCR Revisions in 2020

Contact: sarah@nshhcoalition.org

www.nchh.org ♦ @NCHH ♦ facebook.com/HealthyHousing

National Safe and Healthy Housing Coalition